CIRCUIT DESCRIPTION

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APPENDIX 1D
DWG ISSUE 10D
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COMMON SYSTEMS
METALLIC FACILITY TERMINAL
BAY WIRING

CHANGES

D. Description of Changes

D.1 CAD's 26 and 27 rated A&M.

D.2 CAD's 30 and 31 rated MFR DISC.

D.3 The following changes are made to add CMS 1B circuitry for interconnecting centralized maintenance system 1B with associated jacks on J98622BU manual access and communication panel.

D.3.1 FS10, added option V (T and R leads).

D.3.2 CAD 60, added T1 and R1 to row 6 terminals 3 and 4.

D.3.3 CAD 70 and 73, added leads T1 and R1.

D.4 The following changes are made to change interconnect wiring from MFT frames to SMAS 4 or SMAS 5 installations.

D.4.1 Note 102, updated "APP FIG" column.

D.4.2 CAD 56, changed notation "TO CAD 51 OR DISTN NETWORK (SD-1P106-01)" to "TO CAD 51".

D.4.3 CAD's 89 and 102, changed notation "TO CAD 91 OR DISTRIBUTION NETWORK (SD-1P106-01)" to "TO CAD 91".

D.4.4 BD 3, updated Block Diagram.

D.5 Added option ZJ to FS5, FS6, notes 102 and 104, CAD 47 and CAD 54 to add major and minor alarm leads for status reporting and control systems.

D.6 FS 15, changed notation on leads ALM2, ALM2R to "9G3". Also changed notation on leads P4-1, P4-8 through P4-13, and P4-20 to "9G3". Drawing corrections.

D.7 FS 16, added notation "8E6" to leads J1-18, J1-42, J1-25, and J1-50. Drawing correction.

D.8 BD 3, on FS16 and FS14 changed P1 to P3, drawing correction.

F. Changes in CD Section

F.1 Add paragraph 5.03, "Option ZJ provides the major and minor alarm circuitry for the centralized maintenance system".

F.2 Add paragraph 8.03, "Option ZJ provides the major and minor alarm circuitry for the centralized maintenance system".

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COMMON SYSTEMS
METALLIC FACILITY TERMINAL
BAY WIRING

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SECTION I - GENERAL DESCRIPTION

1. PURPOSE OF CIRCUIT

1.01 The purpose of this circuit is to provide wiring information for connectorized shelves, modular bays, and bays with maintenance access provision (SMAS) for use in Metallic Facility Terminal (MFT) systems.

2. GENERAL DESCRIPTION OF OPERATION

2.01 The MFT circuit is a standard arrangement for providing various forms of transmission and/or signaling functions which may be required in association with metallic facilities. The transmission and signaling functions are provided by various plug-in units as required by the application. The primary application of the MFT is intended to be in special services, including special access, tie trunks, and private lines services. Typical special access applications include foreign exchange (FX), off-premises station (OPS), long distance (LD) lines, and wide area telephone service (WATS), which utilize loop-type signaling.

2.02 The MFT plug-in circuits are of two types, signaling and transmission. The transmission units contain circuit components associated with voice-frequency transmission. The signaling units contain the circuits required to perform signaling functions. The signaling units interface with the transmission units through A- and B- or SX-type leads. The SX inductors isolate the signaling circuits from the transmission circuits.

2.03 MFT mounting arrangements include single module shelves for transmission units and double module shelves for transmission and signaling units. This schematic diagram describes these two types of shop wired shelves and bays.

2.04 The metallic facility terminal connectorized modular bays (MFTCM) incorporate a factory wired connectorized back plane in a twin arrangement. These back planes are mounted to two adjacent shelves forming a TWIN shelf. The back planes are available in either a single module circuit arrangement or a double module circuit arrangement. The TWIN single module shelves provide 24 circuits and utilize 50-pin connectors and the TWIN double module shelves provide 12 circuits and utilize 24-pin connectors. The circuit arrangement within a connector is such that for 2-wire operation (T and R) only two connectors are used. To add signaling (AS1 and AS2 plus BS1 and BS2), two additional connectors are used. For 4-wire operation, four connectors (T and R plus T1 and R1), are used with two additional connectors required for signaling. An additional 14-pin connector provides power lead access to the power panel. Optional circuitry and associated connectors are available to access the D and F leads in PBX installations and the G and G1 disable leads.

2.05 Circuit information is also provided for bays equipped with auxiliary equipment to provide circuit access for testing and related maintenance functions. This auxiliary equipment is connectorized within the bay to facilitate installation and/or retrofit of SWITCH MAINTENANCE ACCESS SYSTEM (SMAS). The basic bay arrangement provides one Type 3 - connectorized MAC jack access unit for each 24 circuits. This unit and its companion type 3 manual access and communication panel provides the circuit access and facilities through which manual local testing can be conducted. A patch cord inserted in the designated connector on the front of the manual access panel and in the appropriate connector on the MAC jack panel provides for sequential monitoring and subsequent split access to the circuit under test. The circuit leads that are accessible on a split basis are:

MFT "A" SIDE	MFT "B" SIDE
T, R	T, R
T1/A, R1/B	T1, R1
AS1, AS2	

2.06 The SMAS connector equipped bay arrangement provides one type 3 maintenance connector unit for each 24 circuits in addition to the MAC jack units. The maintenance connector contains the relays and associated circuitry to provide through circuit connections or perform the necessary switching function for remote circuit access through the SMAS-3 maintenance concentrator. Four circuit leads are related to the particular MFT Plug-in and are accessible through the maintenance connector. The T1, R1 leads on the "B" side are always accessible. The other two leads are related to the particular MFT plug-in and are either the T, R, or T1/A, R1/B leads on the "A" side or T, R leads on the "B" side.

SECTION II - DETAILED DESCRIPTION

1. SINGLE MODULE MOUNTING (FS1, FS3)

1.01 The single module mounting arrangement may be utilized when transmission enhancement only is required. The MFT transmission units are described in detail in CD-1C359-01 and CD-7C050-01.

2. DOUBLE MODULE MOUNTING (FS2, FS4)

2.01 When transmission enhancement and signaling extension or conversion are required, double module mounting is utilized. Double module mounting has dedicated pairs of slots; one slot in each pair is for a signaling unit, the other slot is for a transmission unit. Compatibility between MFT transmission units and MFT signaling units is documented in Note 315 of SD-1C359-01. The MFT signaling and transmission units are described in CD-1C359-01 and CD-7C050-01.

3. SINGLE MODULE - CONNECTORIZED (FS1)

3.01 FS1 provides wiring information for the MFT connectorized modular bays with option W which provides for the connectorized TWIN back plane assemblies wired in a single module circuit arrangement.

3.02 Option Z is for utilization in applications requiring connections to PBX tie trunk circuits.

3.03 Option K provides for 20 Hz ringing supply (SRS) to pin 30 of the Transmission Unit.

4. DOUBLE MODULE - CONNECTORIZED (FS2)

4.01 FS2 provides wiring information for the MFT connectorized modular bays with option V which provides for the connectorized TWIN back plane assemblies wired in a double module circuit arrangement.

4.02 Option Y is provided to allow either disabling of external repeaters, such as E6 by the MFT LSR or disabling of MFT repeaters by external disablers of which the No. 101 ESS Circuit is the only known example.

4.03 Option Z is for utilization in applications requiring connections to PBX tie trunk circuits.

4.04 Option X provides for motor start lead when ringing machine is operated on a call start basis.

4.05 Option Q provides access to customer side 4-wire simplex leads such as required in No. 101 ESS Tie Trunk or CCSA Trunk operations using 2 Way Dial Repeating Trunk Circuit SD-1H083-01 in conjunction with an MFT 44 Repeater and a DX1 Signaling Unit.

4.05 Option K provides for 20 Hz ringing supply (SRS) to pin 30 of the Transmission Unit.

5. POWER DISTRIBUTION - CONNECTORIZED (FS5)

5.01 FS5 provides wiring information for option R which is required for power distribution to FS1 and FS2. Option R provides for power connections via connectorized cables from the power distribution circuit to the back planes. The power distribution circuit is fully described in CD-7C007-01.

5.02 The J99343YA -72 volt filter is required for -72 volt talk battery applications derived by either combining a floating 24 volt source with -48 volts, option ZA, or cabling to a -72 volt source, option B. The J87304A, L1 DC-DC converter is required' for generating a floating 24 volt source to combine with -48 volt, option A. Neither unit is required for -48 volt talk battery operation.

6. SINGLE MODULE - MAINTENANCE CIRCUITRY (FS3)

6.01 FS3 provides MFT bay wiring information for option T which incorporates the maintenance circuitry for the single module mounting arrangement with maintenance access provisions.

6.02 Option Y is provided to allow either disabling of external repeaters, such as E6 by the MFT LSR or disabling of MFT repeaters by external disablers of which the No. 101 ESS Circuit is the only known example.

6.03 Option K provides for 20-Hz ringing supply (SRS) to pin 30 of the Transmission Unit. The 20-Hz ringing is provided by the miscellaneous mounted Ringing Distribution Panel (option ZD) for single module bays with maintenance.

7. DOUBLE MODULE - MAINTENANCE CIRCUITRY (FS4)

7.01 FS4 provides MFT bay wiring information for option S which incorporates the maintenance circuitry for the double module mounting arrangement with maintenance access provisions.

7.02 Option Y is provided to allow either disabling of external repeaters, such as E6 by the MFT LSR or disabling of MFT repeaters by external disablers of which the No. 101 ESS Circuit is the only known example.

7.03 Option X provides for motor start lead when machine ringing is operated on a call start basis.

7.04 Option Q provides access to customer side 4-wire simplex leads such as required in No. 101 ESS Tie Trunk or CCSA Trunk operations using 2 Way Dial Repeating Trunk Circuit SD-1H083-01 in conjunction with an MFT 44 Repeater and a DX1 Signaling Unit.

7.05 Option K provides for 20 Hz ringing supply (SRS) to pin 30 of the Transmission Unit.

8. POWER DISTRIBUTION - MAINTENANCE CIRCUITRY (FS6)

8.01 FS6 provides wiring information for option N which is the power distribution circuit for MFT bays with maintenance access provisions and is required for power to FS3 and FS4. The power distribution circuit is fully described in CD-7C007-01.

8.02 The J99343YA -72 volt filter is required for -72 volt talk battery applications derived by either combining a floating 24 volt source with -48 volts, option ZA, or cabling to a -72 volt source, option B. The J87304A, L1 DC-DC converter is required for generating a floating 24 volt source to combine with -48 volt, option A. Neither unit is required for -48 volt talk battery operation.

9. MAC JACK ACCESS (FS7)

9.01 FS7 provides wiring information for the multipin access connector circuit for the Type 3 connectorized MAC jack access unit. This basic bay arrangement is designated option M and provides the circuit access and facilities through which manual local testing can be conducted. The circuit leads that are accessible are:

MFT "A" SIDE	MFT "B" SIDE
T, R	T, R
T1/A, R1/B	T1, R1
AS1, AS2	

One type 3 Connectorized MAC jack access unit is provided for each 24 circuits. The unit is completely described in CD-1C605-01.

10. PATCHING CIRCUIT (FS8)

10.01 FS8 provides patching circuitry designated as option J and is required when the bay is not equipped with a maintenance connector circuit (see FS9). One patching circuit per FS8 is required for each 24 operating circuits.

11. MAINTENANCE CONNECTOR (FS9)

11.01 FS9 provides the wiring information for option G which is required when the bay is to be equipped with the SMAS type 3 maintenance connector unit (option J not required). One connector unit is required for each 24 circuits. The unit contains the relays and associated circuitry to provide through circuit connections or perform the necessary switching function for remote circuit access through the SMAS-3 maintenance concentrator. The T1, R1 leads on the "E" side and either the T, R or T1/A, R1/B leads on the "A" side or T, R leads on the "B" side are accessible. A complete description of the maintenance connector unit is contained in CD-1C605-01.

12. MANUAL ACCESS AND COMMUNICATIONS CIRCUIT (FS10)

12.01 FS10 provides the wiring information for option F which is required to utilize the type 3 manual access and communications panel. This circuit arrangement is required in only one of every three bays. The manual access and communications panel provides access to the MAC jack through a patch cord of sufficient length to reach the jacks on an adjacent bay on either side. The manual access and communications panel is described in detail in CD-1C604-01.

13. RINGING DISTRIBUTION CIRCUIT (FS11)

13.01 FS11 consists of wiring information for Option ZD which provides for the miscellaneous mounted Ringing Distribution Panel for use with single module bays with maintenance.

14. SINGLE MODULE - MAINTENANCE CIRCUITRY (FS 12)

14.01 FS 12 provides MFT bay wiring information for option ZE which incorporates the maintenance circuitry for the single module mounting arrangement with maintenance access provisions.

14.02 Option Y is provided to allow either disabling of external repeaters, such as E6 by the MFT ISB or disabling of MFT repeaters by external disablers of which the No. 101 ESS Circuit is the only known example.

14.03 Option Z is for utilization in applications requiring connections to PBX tie trunk circuit.

15. DOUBLE MODULE - MAINTENANCE CIRCUITRY (FS 13)

15.01 FS 13 provides MFT bay wiring information for option ZF which incorporates the maintenance circuitry for the double module mounting arrangement with maintenance access provisions.

15.02 Option Y is provided to allow either disabling of external repeaters, such as E6 by the MFT ISR or disabling of MFT repeaters by external disablers of which the No. 101 ESS Circuit is the only known example.

15.03 Option X provides for motor start lead when machine ringing is operated on a call start basis.

15.04 Option Q provides access to customer side 4-wire simplex leads such as required in No. 101 ESS Tie Trunk or CCSA Trunk operations using 2 Way Dial Repeating Trunk Circuit SD-1H083-01 in conjunction with an MFT 44 Repeater and a DX1 Signaling Unit.

15.05 Option Z is for utilization in applications requiring connections to PBX tie trunk circuit.

16. PATCHING CIRCUIT (FS 14)

16.01 FS 14 provides patching circuitry for single modular bay, designated as option ZG and is required when the bay is not equipped with a maintenance connector circuit (see FS 16). One patching circuit per FS 14 is required for each 24 operating circuits.

17. POWER DISTRIBUTION - CONNECTORIZED (FS 15)

17.01 FS 15 provides wiring information for option ZH which is required for power distribution to FS 1, FS 2, FS 12 and FS 13. Option ZH provides for power connections via connectorized cables from the power distribution circuit to the back planes. The power distribution circuit is fully described in CD-7C007-01.

17.02 The J99343YA -72 volt filter is required for -72 volt talk battery applications derived by either combining a floating 24 volt source with -48 volts, option ZA, or cabling to a -72 volt source, option B. The J87304A,L1 DC-DC converter is required for generating a floating 24 volt source to combine with -48 volt, option A. Neither unit is required for -48 volt talk battery operation.

18. MAINTENANCE CONNECTOR (FS 16)

18.01 FS 16 provides the wiring information for option ZI which is required when the bay is to be equipped with the SMAS type 3 maintenance connector unit (option J not required). One connector unit is required for each 24 circuits. The unit contains the relays and associated circuitry to provide through circuit connections or perform the necesssary switching function for remote circuit access through the SMAS-3 maintenance concentrator. The T1, R1 leads on the "E" side and either the T, R or T1/A, R1/B leads on the "A" side or T, R leads on the "B" side are accessible. A complete description of the maintenance connector unit is in CD-1C605-01.

19. PATCHING CIRCUIT (FS 17)

19.01 FS 17 provides patching circuitry for double module bays designated as option ZK and is required when the bay is not equipped with a maintenance connector circuit (see FS 16). One patching circuit per FS 17 is required for each 24 operating circuits.

SECTION III - REFERENCE DATA

1. WORKING LIMITS

1.01 Working limits for the transmission and signaling units, power distribution circuits and the auxiliary maintenance access equipment are contained in their respective circuit descriptions (CD-1C359-01, CD-7C007-01, CD-1C604-01, CD-1C605-01 and CD-7C050-01).

2. FUNCTIONAL DESIGNATIONS

2.01 Units

Designation	Meaning
TU	Transmission Unit
SU	Signaling Unit
PD	Power Distribution
MJ	MAC Jack
MTCE CONN	Maintenance Connector
MA&CP	Manual Access & Communications Panel
MAN ACCESS	Manual Access
RD	Ringing Distribution

3. FUNCTIONS

3.01 Provides wiring for the application of single or double module arrangements utilizing the MFT transmission and signaling units.

3.02 Provides bay wiring for power distribution. This includes the wiring for the office alarm circuits.

3.03 Provides bay wiring for the usage of the Type 3 connectorized MAC jack access unit allowing manual access for test purposes.

3.04 Provides wiring for through circuit connections for leads which are manually accessable.

3.05 Provides bay wiring to allow for switched maintenance access through the maintenance connector circuit for test purposes.

3.06 Provides wiring to allow usage of the manual access and communications panel for manual testing.

4. CONNECTING CIRCUITS

4.01 The following drawings provide further information on the circuits not covered in detail in this circuit description:

(a) Metallic Facility Terminal Circuit SD-1C359-01.

(b) Switched Maintenance Access System and Type 3 Maintenance Connector Circuit SD-1C605-01.

(c) Manual Access and Communications Panel SD-1C604-01.

(d) Power Distribution Circuit SD-7C007-01.

4.02 The following are typical connecting circuits:

(a) Standard Subscriber set

(b) E6 - Type Line Repeaters

(c) Dial Subscriber Line Circuit SD-26030-01 (typical)

(d) PBX Station Line Circuit SD-5E001-01 (typical)

(e) Long Line Circuits SD-96555-01 and SD-96371-01 (typical)

(f) PBX Central Office Trunk Circuit SD-66617-01 (typical)

(g) Auxiliary Long Line Circuit SD-1E043-01

(h) 801A PBX (as defined in) SD-1E300-01

(i) Trunks Circuit SD-64590-01

(j) Tie Trunk Circuit SD-65718-01

(k) DX Signaling Circuits SD-1C363-01 and SD-95487-01

(l) Signal Lead Extension Circuits SD-1C364-01 and SD-95488-01

5. MANUFACTURING TESTING REQUIREMENTS

5.01 None are required for this drawing. Testing Requirements for the individual circuits are provided in their respective X specifications or circuit descriptions.

SECTION IV - REASONS FOR REISSUE

CHANGES

D.1 Note: This reissue also covers information authorized by the following appendixes to Issue 3A of this CD.

APPX 1B - DWG ISS 6B
APPX 2D - DWG ISS 7D
APPX 3B - DWG ISS 8B

D.2 Option Index updated as follows:

(a) Added options ZE, ZF, ZG, ZH, ZI and ZK.

(b) Option Z, added locations 7E2, 7F2, CAD 32 and CAD 33.

(c) Option V and W, added location 6D2.

(d) Option B, added locations 8E2 and 8E8.

(e) Option ZA, added locations 8E1 and 8E8.

(f) Option Q, added location 7G2.

(g) Option Y, added location 7C2 and 7G2.

D.3 The following changes have been made to provide circuit information for a new series of connectorized modular frames with SMAS 3, SMAS 4, SMAS 5 maintenance access.

D.3.01 Added notes 111, 112, 113, 114, 115, 229, 230, 231, 232, and 306.

D.3.02 Note 101, changed to provide for equipmment J99394A, J99394B, J99394C, J99394G, J99394H, J99394J+K, and J99394J.

D.3.03 Note 102, added options ZE, ZF, ZG, ZH and ZI.

D.3.04 Note 104, added option ZH rated STD previous option R rated MFR DISC.

D.3.05 FS 12, added to provide MFT bay wiring information for option ZE which incorporates the maintenance circuitry for the single module mounting arrangement with maintenance access provisions.

D.3.06 FS 13, added to provide MFT bay wiring information for option ZF which incorporates the maintenance circuitry for the double module mounting arrangement with maintenance access provisions.

D.3.07 FS 14, added to provide patching circuitry for single module bay designated as option ZG and is required when the bay is not equipped with a maintenance connector circuit (see FS16).

D.3.08 FS 15, added to provides wiring information for option ZH which is required for power distribution to FS 1, FS 2, FS 12 and FS 13.

D.3.09 FS 16, added to provide the wiring information for option ZI which is required when the bay is to be equipped with the SMAS type 3 maintenance connector unit.

D.3.10 FS 17, added to provide patching circuitry for double module bays designated as option ZK and is required when the bay is not equipped with a maintenance connector circuit (see FS16).

D.3.11 BD 3 and BD 4, block diagram added.

D.3.12 CAD's 32, 33, 80 through 106, 108 and 109 added.

D.3.13 CAD 67, added to notations CAD's 82, 84, 94 and 109.

D.3.14 CAD 68, added to notations CAD's 82, 84, 94, and 109.

D.3.15 CAD 69, added to notations CAD's 82, 84, 94, and 109.

D.3.16 CAD 70, added to notation CAD's 82, 84, 94, and 109.

D.3.17 CAD 71, added to notations CAD's 82, and 109.

D.4 CAD 1, changed notation to "To CAD 44 OR CUST PREM FAC OR AS REQD." to correct and clarify information.

D.5 The following CAD's changed to permit direct wiring of non-SMAS MFT frames to SMAS maintenance connectors and to update the SMAS equipped MFT frame.

D.5.01 CAD 4, added to notation "CAD 42" and "OR SMAS MTCE CONN AS REQD".

D.5.02 CAD 5, added to notation "OR SMAS MTCE CONN AS REQD".

D.5.03 CAD 7, added to notation "CAD 42" and "OR SMAS MTCE CONN AS REQD".

D.5.04 CAD 8, added to notation "OR SMAS MTCE CONN AS REQD".

D.5.05 CAD 10, added to notation "CAD 42" and "OR SMAS MTCE CONN AS REQD".

D.5.06 CAD 11, added to notation "OR SMAS MTCE CONN AS REQD".

D.5.07 CAD 13, added to notation "CAD 42" and "OR SMAS MTCE CONN AS REQD".

D.5.08 CAD 14, added to notation "OR SMAS MTCE CONN AS REQD".

D.5.09 CAD 16, added to notation "OR SMAS MTCE CONN AS REQD".

D.5.10 CAD 17, added to notation "OR SMAS MTCE CONN AS REQD".

D.5.12 CAD 23, added to notation "OR SMAS MTCE CONN AS REQD".

D.5.13 CAD 51, changed notation "TO MTCE CONC & CONT CKT" to "FOR SMAS 3 SEE MTCE CONC. & CONT CKT (SD-99500-01 OR FOR SMAS 5 SEE MTCE CONN APPLICATION SCHEMATIC (SD-1P106-01)".

D.6 The following CAD's have been changed to recode the J99378J through J99378R, the ED-7C173-() and ED-7C174-() equipment to the J99394 series frames, and the ED-7C191-() and ED-7C192-() backplanes.

D.6.01 CAD 36, added to notation "CAD 100 or 101". Added ED information to connector P2. Added reference to note 306.

D.6.02 CAD 37, added to notation "CAD 100 OR 101". Added ED information to connector P3. Added reference to note 306.

D.6.03 CAD 38, added to notation "OR CAD 90".

D.6.04 CAD 39, added to notations "CAD's 82, 84, 92, 94, 96, 97, 98 and 109".

D.6.05 CAD 40, added to notations "CAD's 84, 92, 94, 96, 97 and 98".

D.6.06 CAD 41, added to notation "TO CAD 7, 8 OR 55" CAD's 82 and 94. Added to notation "TO CAD 10, 11, or 55" CAD's 84 OR 109 AS REQD.

D.6.07 CAD 42, added to notation "TO CAD 8 OR 55" CAD's 7, 82, 94. Added to notation "TO CAD 14 OR 55" CAD's 13, 82, 96. Added to notation "TO CAD 5 OR 55" CAD's 4, 82, 92. Changed notation "CAD 11 OR 55" to "TO CAD 11, 10, 55, 84 OR 109 AS REQD".

D.6.08 CAD 43, added to notation CAD's 80, 81.

D.6.09 CAD 44, added to notation CAD 80.

D.7 CAD 1, changed notation on lead to pin 1 to "TO CAD 44 OR CUST PREM FAC OR AS REQD" to correct and clarify information.

D.8 CAD 51, the following changes have been made to correct and clarify information.

(a) Changed notation on leads MC() and GRD, terminal 1 row 4 to "TO CAD 56".

(b) Added to notation on leads MC() and GRD, terminal 0 row 4 "CAD's 54 OR 65".

(c) Changed lead on terminal 1 row 3 to H1.

(d) Changed lead on terminal 8 row 0 to H.

(e) Added "IN SMAS 3 ONLY" to row 0 and row 1.

D.9 FS 1 and FS 2, changed notation "3E4" to "3E4 OR 4E4" to provide circuit information for new power distribution panel in connectorized modular frames.

D.10 FS 9, changed leads H(A) to H1, H(B) to H, T(1) to T1 and R(1) to R1 to correct and clarify information.

D.11 FS 9, to provide for recode added notation "FOR SMAS 3 SEE MTCE CONC. & CONT CKT (99500-01) FOR SMAS 5 SEE MTCE CONN APPLICATION SCHEMATIC (SD-1P106-01)". The above notation replaces "TO MTCE CONC & CONT CKT".

D.12 FS 9, to provide for recode changed MTCE CONN MC (SD-1C605-01) to MTCE CONN MC (SD-1C605-02). Also added to leads where indicated note "MAY CONNECT TO NINE ADDITIONAL MAINTENANCE CONNECTORS FOR SMAS 3".

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